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**REMARKS/ARGUMENTS****1.) Status of Claims**

Claims 2-4, 6, 8, 9, 12, 13, and 15-34 are pending in the application.

**2.) Claim Rejections – 35 U.S.C. § 102(e)**

In paragraph 6 of the Office Action, the Examiner rejected claims 2-4, 6, 8, 9, 12, 13 and 15-34 under 35 U.S.C. § 102(e) as being anticipated by Olafsson, et al. (US 6,278,744). The Applicants respectfully disagree.

Regarding independent claim 9, the Examiner states that Olafsson discloses storing the received data in the receiver (col. 14, lines 38-42), calculating information for determining characteristics of the channel (col. 13, lines 7-17), and using the channel characteristics to determine the amount of redundancy to be selected for the next transmission (col. 13, lines 7-17). The Applicants note, however, that the memory disclosed in col. 14, lines 38-42 of Olafsson is in the *transmitter*, not the receiver. There is no disclosure in Olafsson of a memory in the receiver. Additionally, the step of calculating information for determining characteristics of the channel, disclosed in col. 13, lines 7-17 of Olafsson has no relevance to claim 9 because claim 9 does not recite such a step. Finally, the Applicants note that Olafsson uses the determined channel characteristics to determine, in the transmitter, the amount of redundancy to be selected for transmitting *new* data blocks, not for retransmitting data blocks that were previously transmitted.

Thus, the Examiner's conclusion is flawed when he states, "The receiver will be able to support the additional redundancy, which will allow for the error free recovery of the originally transmitted data, if the receiver requests the additional redundancy." This conclusion is flawed for several reasons. First, there is nothing in Olafsson that ensures that the receiver will be able to support the additional redundancy. There is no mention of a memory or other resources in the receiver that may limit the capacity of the receiver to support additional redundancy. In Olafsson, the receiver reports channel conditions to the transmitter, which then determines the level of redundancy to be used for future transmissions. Second, Olafsson clearly states that the level of redundancy determined

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by the transmitter is applied to new data blocks. There is no disclosure whatsoever of retransmitting previous data blocks.

For all the above reasons, Olafsson fails to teach or even suggest the claimed invention. Therefore, withdrawal of the rejection under § 102, and the allowance of claim 9, is respectfully requested.

Claims 13, 26, 27, and 30-32 depend from claim 9 and recite further limitations in combination with the novel elements of claim 9. Therefore, the allowance of claims 13, 26, 27, and 30-32 is respectfully requested.

Regarding independent claim 15, the Examiner again erroneously cites passages in Olafsson for showing the claimed invention, in this case, a receiver. The Examiner states that Olafsson discloses storing the received data in the receiver (col. 14, lines 38-42). However, as noted above, the memory disclosed in col. 14, lines 38-42 of Olafsson is in the *transmitter*, not the receiver. There is no disclosure in Olafsson of a memory in the receiver. The Examiner also states that Olafsson calculates information for determining characteristics of the channel, and uses the channel characteristics to determine the amount of redundancy to be selected for the next transmission (col. 13, lines 7-17). This differs from the claimed invention in several aspects.

First, as noted above, Olafsson uses the channel characteristics to determine the amount of redundancy to be selected for transmitting *new* data blocks, not for retransmitting data blocks that were previously transmitted. Second, Olafsson determines the new level of redundancy *in the transmitter*, without regard to the capability of the receiver to handle it. The claimed invention, on the other hand recites that the receiver includes means for determining whether the receiver has sufficient resources available for the receiver to utilize an incremental redundancy operating mode to obtain additional redundant subblocks of data for additional attempts to decode the initial data blocks that could not be decoded. [Not disclosed in Olafsson]. In the incremental redundancy operating mode, additional redundant subblocks of data associated with the initial data blocks that could not be decoded are repeatedly retransmitted to the receiver until the receiver successfully decodes the data blocks that could not be decoded. [Not disclosed in Olafsson]. The receiver combines the additional redundant subblocks of data with the initial data blocks, and utilizes a joint

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decoding process. [Not disclosed in Olafsson]. The receiver also includes means for transmitting a message to the transmitter indicating a preferred operating mode. [Not disclosed in Olafsson]. The message indicates that the preferred operating mode is the incremental redundancy mode if the receiver has sufficient resources available to store and jointly decode the received initial data blocks as well as the additional redundant subblocks of data. [Not disclosed in Olafsson]. The message indicates that the preferred operating mode is a non-incremental redundancy mode if the receiver does not have sufficient resources to utilize the incremental redundancy operating mode. [Not disclosed in Olafsson].

As can be seen, none of these key features of claim 15 are disclosed in Olafsson. For all the above reasons, Olafsson fails to teach or even suggest the claimed invention. Therefore, withdrawal of the rejection under § 102, and the allowance of claim 15, is respectfully requested.

Claim 16 depends from claim 15 and recites further limitations in combination with the novel elements of claim 15. Therefore, the allowance of claim 16 is respectfully requested.

Regarding independent claim 17, the same arguments apply. Claim 17 recites a method of transferring information between a transmitting entity and a receiving entity. The method includes the steps of receiving and storing the initial subblocks of data at the receiving entity [Not disclosed in Olafsson]; determining, at the receiving entity, whether available resources of the receiving entity will support reception of additional redundant subblocks of data utilizing an incremental redundancy mode in which the additional redundant subblocks are repeatedly retransmitted to the receiving entity until the receiving entity successfully decodes the initial subblocks of data in a joint decoding process with the additional redundant subblocks; [Not disclosed in Olafsson] and sending a retransmission indicator from the receiving entity to the transmitting entity, which indicates whether or not operation in the incremental redundancy mode is preferred. [Not disclosed in Olafsson]. The incremental redundancy mode is indicated as being preferred if the available resources of the receiving entity will support reception of additional redundant subblocks of data utilizing the incremental redundancy mode. [Not disclosed in Olafsson].

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Once again, none of the key features of claim 17 are disclosed in Olafsson. For all the above reasons, Olafsson fails to teach or even suggest the claimed invention. Therefore, withdrawal of the rejection under § 102, and the allowance of claim 17, is respectfully requested.

Claims 2, 18, 3, 8, 4, 6, and 19 depend from claim 17 and recite further limitations in combination with the novel elements of claim 17. Therefore, the allowance of claims 2, 18, 3, 8, 4, 6, and 19 is respectfully requested.

Regarding independent claim 20, the same arguments apply. Claim 20 recites a method in a receiver for decoding received blocks of data. The method includes the steps of storing received initial data blocks in a memory [Not disclosed in Olafsson]; determining whether the receiver has sufficient resources available for the receiver to utilize an incremental redundancy operating mode to obtain additional redundant subblocks of data [Not disclosed in Olafsson]; sending a message to a transmitter indicating that the incremental redundancy operating mode is preferred, upon determining that the receiver has sufficient resources available to utilize the incremental redundancy operating mode [Not disclosed in Olafsson]; and sending a message to the transmitter indicating that a non-incremental redundancy operating mode is preferred, upon determining that the receiver does not have sufficient resources available to utilize the incremental redundancy operating mode [Not disclosed in Olafsson].

Once again, none of the key features of claim 20 are disclosed in Olafsson. For all the above reasons, Olafsson fails to teach or even suggest the claimed invention. Therefore, withdrawal of the rejection under § 102, and the allowance of claim 20, is respectfully requested.

Claim 21 depends from claim 20 and recites further limitations in combination with the novel elements of claim 20. Therefore, the allowance of claim 21 is respectfully requested.

Regarding independent claim 22, the same arguments apply. Claim 22 recites a method in a transceiver for encoding blocks of data and transmitting the encoded data blocks to an external receiver. After encoding blocks of data, generating initial subblocks of data from each of the encoded data blocks, and transmitting the initial subblocks of data to the external receiver, the transceiver receives a message from the

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external receiver indicating a preferred operating mode for transmitting additional redundant subblocks of data to the receiver. This step is not disclosed in Olafsson because in Olafsson, the receiver indicates only channel conditions, and the transmitter determines the operating mode to be used for transmitting new blocks of data. The transceiver in the claimed invention then encodes the additional redundant subblocks of data utilizing an MCS appropriate for the preferred operating mode indicated in the message from the receiver, and transmits the encoded additional redundant subblocks of data to the external receiver utilizing the preferred operating mode. This step is likewise not disclosed in Olafsson because in Olafsson, the new operating mode is used for transmitting new blocks of data, not for transmitting additional redundant subblocks of data to the external receiver.

Thus, several key features of claim 22 are not disclosed in Olafsson. For all the above reasons, Olafsson fails to teach or even suggest the claimed invention. Therefore, withdrawal of the rejection under § 102, and the allowance of claim 22, is respectfully requested.

Claims 23-25 depend from claim 22 and recite further limitations in combination with the novel elements of claim 22. Therefore, the allowance of claims 23-25 is respectfully requested.

Regarding independent claim 28, the same arguments apply as discussed above for claim 22 because claim 28 is an apparatus-type claim corresponding to method claim 22. Claim 28 recites a transceiver for encoding blocks of data and transmitting the encoded data blocks to an external receiver. Among other components, the transceiver includes means for receiving a message from the external receiver indicating a preferred operating mode for transmitting additional redundant subblocks of data to the receiver. This component is not disclosed in Olafsson because in Olafsson, the message from the receiver indicates only channel conditions, not a preferred operating mode. Olafsson's transmitter then determines the operating mode to be used for transmitting new blocks of data based on the channel conditions. As noted above, the receiver may not have the resources to support the mode selected by the transmitter. The transceiver in the claimed invention also includes an encoder that encodes the additional redundant subblocks of data utilizing an MCS appropriate for the

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preferred operating mode indicated in the message from the receiver. The encoded additional redundant subblocks of data are then provided to a transmitting means for transmission to the external receiver utilizing the preferred operating mode. These components are likewise not disclosed in Olafsson because in Olafsson, the transmitter uses the new operating mode for transmitting *new* blocks of data, not for transmitting additional redundant subblocks of data to the external receiver.

Thus, several key features of claim 28 are not disclosed in Olafsson. For all the above reasons, Olafsson fails to teach or even suggest the claimed invention. Therefore, withdrawal of the rejection under § 102, and the allowance of claim 28, is respectfully requested.

Claim 29 depends from claim 28 and recites further limitations in combination with the novel elements of claim 28. Therefore, the allowance of claim 29 is respectfully requested.

Regarding independent claim 33, the same arguments apply. Claim 33 recites a method of transferring information between a transmitting entity and a receiving entity. After initial blocks of data are encoded and transmitted, the receiving entity sends a segmentation indicator to the transmitting entity indicating whether data blocks that the receiving entity could not decode should be resegmented by the transmitting entity prior to retransmission to the receiving entity. [Not disclosed by Olafsson]. The receiving entity then selects a retransmission MCS to be utilized by the transmitting entity for retransmitting the data blocks that the receiving entity could not decode, and sends the selected retransmission MCS from the receiving entity to the transmitting entity. [Not disclosed by Olafsson]. If the selected retransmission MCS is different from the initial MCS, the transmitting entity utilizes the retransmission MCS selected by the receiving entity to re-encode the data blocks that the receiving entity could not decode. [Not disclosed by Olafsson]. The transmitting entity then retransmits the re-encoded data blocks to the receiving entity. [Not disclosed by Olafsson]. The transmitting entity either resegments or does not resegment the retransmitted data blocks in accordance with the segmentation indicator received from the receiving entity. [Not disclosed by Olafsson].

Several of these steps are not taught or suggested by Olafsson because Olafsson does not disclose retransmitting data blocks, and therefore does not suggest

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resegmenting data blocks that are to be retransmitted. In addition, Olafsson's receiver indicates only channel conditions, and the transmitter determines the operating mode to be used for transmitting new blocks of data.

Thus, several key features of claim 33 are not disclosed in Olafsson. For all the above reasons, Olafsson fails to teach or even suggest the claimed invention. Therefore, withdrawal of the rejection under § 102, and the allowance of claim 33, is respectfully requested.

Claim 12 depends from claim 33 and recites further limitations in combination with the novel elements of claim 33. Therefore, the allowance of claim 12 is respectfully requested.

## **2.) Prior Art Not Relied Upon**

In paragraph 7 of the Office Action, the Examiner stated that the prior art made of record and not relied upon, Khan et al. (US 2001/0056560), is considered pertinent to the Applicants' disclosure. However, Khan does not disclose a method or apparatus in which a receiving entity determines whether available resources of the receiving entity will support reception of additional redundant subblocks of data, and then sends an indicator to the transmitting entity indicating a preferred transmission mode based upon receiving entity resources. Likewise, Khan does not disclose a method or apparatus in which a receiving entity sends an indicator to the transmitting entity indicating a preferred transmission mode in addition to an indicator indicating whether retransmitted blocks should be resegmented.

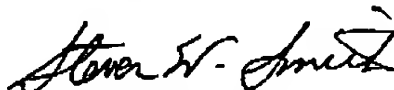
## **CONCLUSION**

In view of the foregoing remarks, the Applicants believe all of the claims currently pending in the Application to be in a condition for allowance. The Applicants, therefore, respectfully request that the Examiner withdraw all rejections and issue a Notice of Allowance for claims 2-4, 6, 8, 9, 12, 13, and 15-34.

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The Applicants request a telephonic interview if the Examiner has any questions or requires any additional information that would further or expedite the prosecution of the Application.

Respectfully submitted,



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